



### ABSTRACT

Polarized electric charge storage devices economically provide high available capacitance. The present invention directly employs polarized electrical charge storage (PECS) devices such as polarized capacitors or electrochemical batteries in general AC applications with a novel circuit topology. In one embodiment, an anti-series configuration of first and second PECS devices are used within an AC network for enhancing operation of the AC network. At least one DC source is provided for maintaining the PECS devices forwardly biased while they are subjected to an AC signal. The AC signal, which drives an AC load, is applied to the anti-series devices. The devices are sufficiently biased by the at least one DC voltage source so that they remain forwardly biased while coupling the AC signal.